

Appl. No. 10/532,933
Response to Office Action of April 26, 2006

PATENT
Docket No.: NL021065
Customer No. 000024737

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A coordinate measuring device having a probe comprising:
_____ a stylus (14) with a sensing member (18) for contacting the an object (15) to be measured; ~~[[,]]~~
_____ elastic means (19) including two spaced-apart spring members (52), each spring member having a central portion, a circumferential ring portion, and at least one leaf spring (41) extending between the central portion and the circumferential ring portion, wherein each spring member further comprises conductive material;
_____ a support unit (13) to which the stylus (14) is connected through said elastic means (19), wherein a flexibility of the at least one leaf spring of each spring member provides an elastic connection between the support unit and the stylus; [[,]] and
_____ magnet means (46) incorporated within a plate of nonmagnetic material and appearing on surfaces at both sides of the plate of nonmagnetic material, wherein the plate of nonmagnetic material has a circular shape of a same diameter as each of the spring members and has a hole in a central part thereof for passage of the stylus (14) there-through, said plate further having a circumferential ring shaped thick portion that comprises a thickness greater than a thickness of a remainder portion of the plate, wherein the circumferential ring shaped thick portion provides a predetermined distance between each of the two spring members and the plate, wherein the plate is located between the two spaced-apart spring members (52), and wherein said magnet means (46) are further for damping vibrations of the stylus (14) by generating eddy currents in the conductive material of each leaf spring of said elastic means, characterized in that the elastic means (19) comprise at least one leaf spring (41) made of conductive material, and in that said magnet means (46) generate eddy currents in said leaf spring (41).

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2. (currently amended) A coordinate measuring device as claimed in claim 1,
~~characterized in that~~ wherein said conductive material is a nonmagnetic material.
3. (currently amended) A coordinate measuring device as claimed in claim 1,
~~characterized in that~~ wherein the conductive material is aluminum or an aluminum alloy,
or copper or a copper alloy.
4. (currently amended) A coordinate measuring device as claimed in claim 1,
~~characterized in that a~~ wherein each leaf spring (41) comprises two portions positioned
inclined to each other, an outer portion (44) ~~bein~~ being connected to the support unit
(13) and an inner portion (45) being connected to the stylus (14).
5. (currently amended) A coordinate measuring device as claimed in claim 1,
~~characterized in that~~ wherein each spring member of the elastic means (19) further
comprise a number of leaf springs (41) and are made out of one sheet of material.
6. (currently amended) A coordinate measuring device as claimed in claim 1,
~~characterized in that~~ wherein the configuration of the leaf springs (41) is rotationally
symmetrical, having an axis of symmetry perpendicular to the plane of the leaf springs
(41).
7. (canceled)
8. (currently amended) A coordinate measuring device as claimed in ~~claim 7,~~
~~characterized in that~~ claim 1, wherein each spring member (52) comprises a number of
leaf springs (41) made out of one sheet of material, ~~while~~ further wherein the spring
members (52) are located parallel to each other.

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9. (currently amended) A coordinate measuring device as claimed in claim 1, ~~characterized in that~~ wherein the magnet means (46) further comprise a number of permanent magnets.

10. (canceled)

11. (currently amended) A coordinate measuring device as claimed in claim 9, ~~characterized in that~~ wherein the permanent magnets are positioned in an array (49,50), adjacent to each other.

12. (currently amended) A coordinate measuring device as claimed in ~~claim 10,~~ claim 11, wherein the magnetic axes of said permanent magnets are positioned in the plane of said plate (46) and perpendicular to the array (49,50).

13. (currently amended) A method of measuring the position of an object (15), whereby the object is contacted by a stylus (14) of a probe, the probe comprising the stylus (14) with a sensing member (18), a support unit (13) to which the stylus (14) is connected through elastic means (19), and magnet means (46) for damping vibrations of the stylus (14) by generating eddy currents in conductive material, ~~characterized in that~~ wherein the elastic means (19) comprise two spaced-apart spring members (52), each spring member having a central portion, a circumferential ring portion, and at least one leaf spring (41) extending between the central portion and the circumferential ring portion, wherein each spring member further comprises made of conductive material, wherein a flexibility of the at least one leaf spring of each spring member provides an elastic connection between the support unit and the stylus, and in that wherein said magnet means are incorporated within a plate of nonmagnetic material and appearing on surfaces at both sides of the plate of nonmagnetic material, wherein the plate of

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nonmagnetic material has a circular shape of a same diameter as each of the spring members and has a hole in a central part thereof for passage of the stylus (14) there-through, said plate further having a circumferential ring shaped thick portion that comprises a thickness greater than a thickness of a remainder portion of the plate, wherein the circumferential ring shaped thick portion provides a predetermined distance between each of the two spring members and the plate, wherein the plate is located between the two spaced-apart spring members (52), and wherein said magnet means (46) further generate eddy currents in the conductive material of said leaf spring (41).